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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/517,977 | 03/03/2000 | Dean Boyd | 20113.0001U2 | 5716 |

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HOGAN & HARTSON LLP
IP GROUP, COLUMBIA SQUARE
555 THIRTEENTH STREET, N.W.
WASHINGTON, DC 20004

| EXAMINER | |
|---|---|
| COSIMANO, EDWARD R | |
| **ART UNIT** | **PAPER NUMBER** |
| 3629 | |

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/517,977 | BOYD ET AL. | |
| | Examiner | Art Unit | |
| | Edward R. Cosimano | 3629 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *none* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/3/00 & 1/23/04* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Applicant should note the changes to patent practice and procedure:

A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;

B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and

C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.

2. Applicant's claim for the benefit of an earlier filing data under 35 U.S.C. § 119(e) is acknowledged.

3. The proposed drawing correction filed 23 January 2004 has been approved.

4. The oath or declaration filed on June 05, 2000 and January 23, 2004 are defective. A new oath or declaration in compliance with 37 C.F.R. § 1.67(a) identifying this application by its Serial Number and filing date is required. See M.P.E.P. §§ 602.01 and 602.02.

4.1 The oath or declaration filed on January 23, 2004 is defective because:

A) inventor's Boyd and Guardino have not executed the supplemental declaration.

5. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

6. Claims 1-37 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6.1 In regard to claims 1-37, although on of ordinary skill at the time of the invention would known how to accomplish each of the individual recited actions/functions from the language of these claims, since, there is no clear and definite interconnection between one or more of the recited limitations of these claims, one of ordinary skill could not determine from the language of these claims whether or not they are in fact making and/or using the claimed

invention. In this regard it is noted that from the language of these claims it is vague, indefinite and unclear:

A) in regard to claims 1-37, what is meant by applicant's use of the word "value" in relation to the words "pricing", "costing" "price", since as would be understood by one of ordinary skill the word "value" is associated with the price or cost of an associated item to someone or something and not the object/item to be valued.

B) in regard to claims 1-37, what is the relationship of the "value" to the information in either the "product model" or "competitor net price model" or "market response model" so that one of ordinary skill may properly use either the "product model" and/or "competitor net price model" and/or the "market response model" to determine the associated cost or price of the "value".

C) in regard to claims 1-37, what is meant by the phrase "optimal winning value", since the remainder of the claim deals with determining a price for the "value" whereas the word "winning" appears to suggest some type of competition to be won.

D) in regard to claims 2 & 8, and how the benefits of the target price may be determined, since the claim fails to address how the determined "benefits" would consider how any of the competitors that are selling the same thing would react to a change in the target/selling price.

E) in regard to claims 3, 7, 20, 21 & 34, and what is meant by the phrase "maximizes expected contribution for the value" as well as how this value may be determined, since this claim fails to recite the nature, amount and source the contribution so that it may be maximized.

F) in regard to claims 4, 11 & 25, and how the "equivalent competitor net price" is overridden" when the calculated competitor's net price is outside of the target range, since this claim fails to recite exactly what price would be used under when the calculated competitor's net price is outside of the target range.

G) in regard to claims 6 & 20, and how the size of the "range of prices" is determined, since the claim fails to recite how to determine what would be an acceptable range of prices as envisioned by applicant.

H) in regard to claim 10, and how the "reference price" is selected so that it may be retrieved from the "product model for a specific value" and then applied to a "discounting model" to determine a "competitor net price", since as recited in this claim the "reference price" is not related to any factual or actual current conditions of the market for the "value".

I) in regard to claims 12 & 26, and why and how the recited "coefficients" are used in the "market response model", since the claims lack any reference to an equation or anything else that would require the use of "coefficients".

J) in regard to claims 12-14 & 26-28, and what are the "price-independent predictors" that are evaluated when calculating the "probability of wining", since one of ordinary skill would not know what to evaluate.

K) in regard to claims 12 & 26, and how the "market response curve" is generated and then used to estimate the "probability of wining", since one of ordinary skill would not know what data is to be used to generated the "market response curve" or how such a curve would be used to estimate the "probability of wining".

M) in regard to claims 15 & 29, and how the "probability of a successful bid" can be determined from comparing a "target price" to a "market response curve", since neither of these would provide a "probability".

N) in regard to claim 15, and how the recited "bid" is related to the determined "target price" so that the benefits of the "target price" may be determined.

O) in regard to claims 15 & 16, and how the recited "bid" is related to the "target price", since a bid suggest a competition/auction which has not been recited in the claims.

P) in regard to claims 16 & 30, and how the "target price bid" may be determined by either:

(1) discounting a "list price" of an unknown item from the "price model", since as recited in this claim the "list price" is not related to the item priced using the pricing model in claim 7; or

(2) adding an unknown "predetermined amount" to the "cost for the value", since as recited in this claim the "predetermined amount" is not related to the "cost for the value"; or

(3) matching a "historic rate for a specific value", since as recited in this claim the "historic rate" is not related to the item/value for which the "target price bid" is to be determined.

Q) in regard to claims 17 & 31, and what the "strategic objects" are so that the applicability of a "strategic object" may be evaluated so that it may be applied to "constrain" the "target range of prices", since the claim fails to recite for what entity the "strategic object" is applicable.

R) in regard to claims 17 & 32, and how the "strategic object" is related to either "a pre-determined maximum or minimum margin on the value" or "a pre-determined maximum or minimum success rate on the value", so that the applicability of the "strategic object" may be determined.

S) in regard to claims 19 & 33, how the calculated "target range for the value" is used by the claimed invention, since claims 7 & 21 fail to recite the need for a target range.

T) in regard to claims 21-34 & 37, how the "probability of winning the bid" may be calculated as a function of "price using parameters from an electronically stored market response model", since the claim fails to recite either what the parameters are or how a "market response model" maybe used to determine the "probability of a winning bid".

U) in regard to claim 22, how the "benefits of the target pricing method" over a "pre-existing pricing approach" may be determined, since at least the price using the "pre-existing pricing approach" has not been determined.

V) in regard to claim 25, how the "price from a product model" is related to a "specific bid" so that this value may be used to determine a "competitor net price for a bid", since these values are unrelated to one another.

W) in regard to claims 24-25, to which price the "discounting model" is applied, since there are multiple prices recited in claims 23 and 24.

X) in regard to claim 28, and what are either the "static" or the "variable" "price-independent predictors" that are evaluated when calculating the "probability of wining", since one of ordinary skill would not know what to evaluate.

Y) in regard to claim 34 how the "target range" is determined from the "maximum expected contribution" so that an "optimum target range" may be calculated.

Z) in regard to claims 35-37, what are the "price-independent terms for competitor j" and "price-dependent terms for the competitor j" so that these values may be summed while solving the equation recited in these claims.

6.2 Claims not specifically mentioned above, inherit the defects of the base claim through dependency. For the above reason(s), applicant has failed to particularly point out what is regarded as the invention.

7. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

7.1 Claims 1-37 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.1.1 The instant claims recite a method comprising a series of steps/actions/functions to be performed on a computer, (claims 1-37), which have a disclosed practical application in the technological or useful arts. Further, the instant claims do not merely define either a computer program, a data structure, non-functional descriptive material, (i.e. mere data) or a natural phenomenon.

7.1.2 In regard to claims 1-37, the invention as set forth in these claims merely describes:

A) in regard to claims 1-6 & 35 a series of actions by a computer to determine an optimal price for an item which as recited in the claim is not required to be used or implemented by anyone or anything outside of the computer and hence is merely an abstract exercise.

B) in regard to claims 7-34, 36 & 37 a series of actions by a computer to determine a target price for an item that maximizes an unknown contribution and considers competitive response, where as recited in the claim is not required to be used or implemented by anyone or anything outside of the computer and hence is merely an abstract exercise.

However, the process as recited in these claims does not apply the result of either the claim as a whole or the manipulations of data as recited in these claims in such a manner so as to be tangibly used in a concrete manner and hence to produce a useful concrete and tangible result, that is a concrete and tangible application with in the technological or useful arts.

7.1.3 It is further noted that applicant has not recited in these claims a specific process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, which is either:

A) altered or changed or modified by the invention recited in claims; or

B) utilizes the result of the invention recited in these claims; or

C) is operated or controlled by the result of the invention recited in these claims.

7.1.4 It is further noted in regard to claims 1-37, that as claimed applicant has not claimed:

A) pre computer processing, since the claims fail to recited that the data, which originates from an unknown source, is manipulated or transformed/changed before it is processed; or

B) post computer processing, since the claims fail to recited that the data which represents the result of the claimed manipulation, is neither manipulated nor used nor changed by any device after it has been processed; or

C) a practical use of the claimed invention by any physical system or device or method outside of a statement of the intended use of the claimed invention; or

D) process steps or physical acts/operations that would affect the internal operation of a computer/machine as were found to be statutory in either In re McIlroy 170 USPQ 31 (CCPA, 1971) or In re Waldbaum 173 USPQ 430 (CCPA, 1972); or

E) process steps or physical acts/operations that would be considered as going beyond the manipulation of "abstract ideas" as were found to be non-statutory in In re Warmerdam 31 USPQ2d 1754 (CAFC, 1994); or

F) a concrete and tangible practical application of either:

(1) the invention as a whole; or

(2) the final results of the manipulations/actions with in the technological or useful arts;

note In re Sarkar 200 USPQ 132 (CCPA, 1978) where the process step of "constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model" was held to be so tenuous connected to the remaining process steps as to not be a process with in the scope of 35 U.S.C. § 101.

Hence, the invention of claims 1-37 is merely directed to an hypothetical mental exercise that manipulates an abstract idea of using a machine to calculating a number with out a claimed concrete and tangible practical application of the abstract idea, (note In re Beauregard 35 USPQ2d 1383 (CAFC 1995) and the associated claims of U.S. Patent 5,710,578; and State Street Bank & Trust Co. v. Signature Financial Group Inc. 47 USPQ2d 1596 (CAFC 1998)).

7.1.5 It is further noted that the type/nature of either the data or the calculated numbers does not affect the operation of the claimed invention and hence are considered to be non function descriptive material, (note In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983)).

7.1.6 In practical terms, claims define nonstatutory processes if they:

A) consist solely of mathematical operations without some claimed practical application (i.e., executing a "mathematical algorithm"); or

B) simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759),

without some claimed practical application of the mathematics or abstract idea.

7.1.7 In view of the above analysis claims 1-37, as a whole, are directed to an hypothetical mental exercise that merely manipulates mathematics or an abstract idea without a claimed concrete and tangible practical application of the mathematics or abstract idea, and hence are directed to non-statutory subject matter.

7.2 Claims 1-37 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter.

7.2.1 As set forth by the Court in:

A) In re Musgrave 167 USPQ 280 at 289-290 (CCPA 1970), "We cannot agree with the Board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all of the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the process to think. All that is necessary, in our view, to make a sequence of operational steps a statutory "process" within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of "useful arts." Cons. Art. 1, sec. 8.", {emphasis added}; and

B) In re Sarkar 100 USPQ 132 @ 136-137 (CCPA 1978), echoing the Board of Appeals stated in regard to claim 14 "14. A method of locating an obstruction in an open channel to affect flow in a predetermined manner comprising:

a) obtaining the dimensions of said obstruction which affect the parameters of flow;

b) constructing a mathematical model of at least that portion of the open channel in which said obstruction is to be located in accordance with the method of claim 1 using those dimensions obtained in step (a) above;

c) adjusting the location of said obstruction within said mathematical model until the desired effect upon flow is obtained in said model; and thereafter

d) constructing said obstruction within the actual open channel at the specified adjusted location indicated by the mathematical model.";

and "Concerning claims 14-39 and the significance of "post-solution activity," like building a bridge or dam, the board concluded: While it is true that the final step in each of these claims makes reference to the mathematical result achieved by performing the prior recited steps, we consider the connection to be so tenuous that the several steps recited in each claim when considered as a whole do not constitute a proper method under the statute.", {emphasis added}.

7.2.2 Further, it is noted in regard to claims 14-39 of Sarkar, although step (d) of claim 14 of Sarkar references the result of step (c) of claim 14 of Sarkar it is clear from the language of step (c) of claim 14 of Sarkar that multiple adjustments to the location of the obstruction are required to be made until a location with the desired effect has been determined. Hence, the reference to constructing the obstruction at the "specified adjusted location" in step (d) of claim 14 of Sarkar is vague, indefinite and unclear in regard to which one of the possible multiple adjusted locations of the obstruction that were used during step (c) of claim 14 of Sarkar would be used when constructing the obstruction as required by step (d) of Sarkar. Therefore, without a clear connection between step (d) of Sarkar and the remaining steps of claim 14 of Sarkar, the Board of Appeals and the Court held that these claims where not a process with in the meaning of process as used in 35 U.S.C. § 101 and hence were directed to non statutory subject matter.

7.2.3 As can be seen from claims 1-37, these claims are directed to a series of various functions/steps/actions, which as set forth above in regard to the rejection of claims 1-37 under 35 U.S.C. § 112 2nd paragraph, are not clearly and definitely interconnected to one another and therefore do not provide an operative useful machine/system or method/process with in the meaning of machine or process as used in 35 U.S.C. § 101.

7.3 Claims 1-37 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since:

A) in regard to claims 1-37, these claims fail to comply with the "requirements this title, namely 35 U.S.C. § 112 2nd paragraph as set forth above.

8. The following is an Examiner's Statement of Reasons for Allowance over the prior art:

A) the prior art, for example:

(1) Burns et al (5,189,606) discloses a biding system in which historical data and models are used to:

(a) determine the costs associated with an item for which the bid is to be made;

(b) determine of a price of an item that includes an associated profit for the item for which the bid is to be made;

(c) consider the affects of the competitor's bids; and

(d) determine the actual bid or target price to be used; and

(2) Messmer et al (2001/0037278) discloses in the environment of determining the optimum bid in a competitive bidding environment by considering of the competition when determining a target price/bid and the use of statistical analysis to determine the probability of the bid being the winning bid.

B) in regard to claim 1, the prior art does not teach or suggest determining target price for a value from an optimal winning value obtained by processing:

(1) a price value obtained using a list price data and a product model;

(2) a costing value obtained using a cost data and a product model; and

(3) an equivalent competitor net price obtained using a previously stored competitor net price model;

with a market response model. Claims 2-6 & 35 are allowable for the same reason.

B) in regard to claims 7 & 21, the prior art does not teach or suggest determining target price for a value from the probability of a winning value obtained by processing:

(1) a price value obtained using a list price data and a product model;

(2) a costing value obtained using a cost data and a product model; and

(3) an equivalent competitor net price obtained using a previously stored competitor net price model;

with a market response model. Claims 8-20, 22-34, 36 & 37 are allowable for the same reason.

9. Response to applicant's arguments.

9.1 All rejections and objections of the previous Office action not repeated or modified and repeated here in have been over come by applicant's last response.

9.2 As per the objection to the declaration, it is noted that as contained in the records of the Patent Office the substitute declaration filed 23 January 2004 was executed by inventor Phillips, hence applicant's arguments are non persuasive.

9.3 As per the 35 U.S.C. § 101 rejection, since:

A) operations that are performed solely within a computer to calculate a number do not go beyond an abstract exercise in data manipulation regardless of what is used to implement the claimed function see Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59 and Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, the mere claiming of a computer to perform the manipulation without also claiming a practical application of the resultant number does not change the abstract nature of the manipulation,

and hence applicant's arguments are non persuasive.

10. The shorten statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

11.1 The fax phone number for **UNOFFICIAL/DRAFT FAXES** is (703) 746-7240.

11.2 The fax phone number for **OFFICIAL FAXES** is (703) 872-9306.

11.3 The fax phone number for **AFTER FINAL FAXES** is (703) 872-9306.

01/04/05

Edward Cosimano

**Edward R. Cosimano**
**Primary Examiner A.U. 3629**